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CLINICAL STUDY OF THE PRESENT EPIDEMIC OF ASIATIC
CHOLERA.

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It has been the custom not to describe epidemic diseases until, after having accomplished their complete evolution, they have ceased to make their melancholy influence felt. It is then only that we are able to sketch the picture of the symptoms and to represent truthfully all the possibilities of the disease. Perhaps, nevertheless, it may not be without its advantages for physicians to be instructed less tardily, even if something unforeseen should be omitted. I have thought that in making at the present time a summary description of the cholera epidemic, as it actually appears at Paris, I might possibly meet the wishes often expressed by physicians.

The brief descriptions which follow have been exclusively collected at the bedside of the patients, either in the city or in the male cholera wards under my charge in the hospital Necker. In relating the facts which I have witnessed I have avoided all theoretical interpretation, and have even thought that I ought to abstain from all parallel with preceding epidemics: I have had no object in view but to furnish materials for a more profound study.

The present epidemic of cholera has not been announced by any of the morbid conditions that have been set down as the precursors of the disease. The public health was as it usually is at this time of the year.

Either from the action of the extreme heat of the autumn or for some other reason, gastric difficulties have appeared in great numbers, and frequent examples are still met with. They have appeared to come on with a peculiar activity. The tongue was coated from the first, there was considerable general uneasiness, and the attack yielded speedily to an emetic-cathartic. These cases, in other respects, presented nothing peculiar.

Since the invasion of cholera, the gastric troubles, without chang-

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ing their character, have been accompanied by some symptoms which ought, I am persuaded, to be attributed to the previous anxiety of the patients. Courageous as one may be, it is impossible to avoid a certain apprehension when he finds, during an epidemic of cholera, that he has a complaint of the stomach and bowels. It is the habit of diseases of the stomach to give warning by sensations which no one escapes, and which are interpreted differently according to the temperament of the patient. Thus patients feeling either a gastralgia or nausea, tormented by the desire to vomit without the ability, or troubled by transient pain in the bowels, are very easily alarmed. Next comes on a chill or an exaggerated precordial anxiety, or trembling of the limbs, which redouble their fears. We should hardly be authorized in attributing entirely to fear the morbid condition which is revealed by positive signs; at the utmost we may make it chargeable as a complication.

Diarrhoeas have not seemed to me more frequent than usual; but I do not accept this generic term as representing a disease. Diarrhoea figures, in the statistical tables of every country, among the affections which cause a considerable mortality; as long as this vague term is employed, the information will remain without any professional value.

I have seen, like all physicians, many people affected with accidental diarrhoea, produced by imperfect digestion, succeeding more or less rapidly to the use of improper food, or a meal taken under unfavorable circumstances. In these cases the matters passed were feculent, of dark color and characteristic odor, and the diarrhoea yielded of itself, without leading to any particular manifestation. It is very different with certain forms of diarrhoea upon which I propose to dwell more at length.

The treatment employed, either for the gastric difficulties or diarrhoeas of simple indigestion, has often been more prejudicial than the malady itself. The patients, imperfectly instructed or timid to excess, have hastened to repress the symptoms of their complaint without taking into the account the disease itself. They have swallowed precipitately laudanum, stimulating alcoholic drinks, or the subnitrate of bismuth. The affection restrained without benefit, there resulted an increase of the malaise, of the thirst, a slight febrile reaction, and above all a colic which is combatted by the same means.

Physicians, in view of the definite responsibility imposed upon them, hesitate to have recourse to a radical treatment, which the patients themselves receive with great distrust. Without being a partisan of emetic-cathartics at the commencement of confirmed cholera, I have seen no other than a good result from their employment in those affections which do not partake in any degree of the influence of the epidemic. I am convinced that in overcoming these complaints, which have a tendency to be protracted, we diminish

rather than augment the predisposition to contract the reigning malady. It has not happened to me once to see any bad effects from a purgative, even an active one, or from an emetic when indicated. When the gastro-intestinal affection has been suspended in its regular evolution by the use of astringents or opiates, and constipation is thus established, patients complain of heaviness of the head, swelling of the belly, pain after food, lassitude, &c., all of which are dissipated by a saline cathartic or a moderate dose of rhubarb.

The diarrhoea caused by the prevailing epidemic, even when it is not destined to a serious termination, has peculiar characters. Preceded by a severe colic, it consists from the first of a liquid evacuation, serous, abundant and more or less colored. The evacuations follow more or less rapidly, every hour or two, often with a longer interval even. After the second or third evacuation the discharges are pale, whitish, quite like thin paste; they are passed without pain, and do not occasion even a sensation of tenesmus or burning; their quantity is always relatively considerable. During the intervals the patient feels rumbling in the bowels, which the hand perceives when laid upon the belly. Pressure does not excite severe pain, nor is there tympanites. The evacuations, in spite of their abundance, are not followed by the sense of weakness which succeeds so commonly to less copious evacuations. When, after five or six stools, the nature of the substances passed is not changed, and the excretion has become neither more watery nor more colorless, it is a favorable sign. In grave cases, or those destined to become such, the stools take on before this time the true cholera aspect.

The vomiting, although not very frequent, is already a harassing complication, whatever may be the nature of the liquid discharged from the mouth. A certain number of cholera patients continue to vomit greenish matters long after the stools have become exclusively serous.

The general condition of the patient furnishes the most important indications for a prognosis. Sometimes the skin remains warm, the eyes are only slightly sunken, the pulse is full and frequent, in spite of the persistence of the white diarrhoea. Sometimes the influence of the cholera appears by different signs. We find some one of the symptoms of cholera either singularly limited or strangely localized. In some dyspncea comes on without any sense of chill, even partial; in others it is a precordial distress; in others, cramps of the lower limbs, or even in a single limb. There are some in whom there is no coldness, except of the tongue, or the nose, or the hands; who complain only of thirst, of trembling, or of suppression of the urine. Each one of these warnings, slight as it may be, deserves to be taken into consideration, since by itself alone it indicates the threatening, if not the speedy coming of a change.

This is, if we may accept the term, the true diarrhoea, not pre-

monitory, but precursory. Most persons thus attacked, if suitably cared for, have a good chance of recovery; but it must not be forgotten that cholera slowly developed presents relatively benign symptoms, and is consequently the most amenable to treatment.

Among workmen and people little anxious about their health, many recover spontaneously, by simple rest in bed and warm drinks, without calling in a physician. Others, not regarding their indisposition, continue their occupation and mode of life. The disease, in fact, has this peculiarity in certain cases, that it does not impair the appetite, causes only slight lassitude, and occasions neither physical depression nor mental anxiety.

In a young man employed in a commercial house, the specific diarrhoea began on Saturday. Five or six evacuations, of which he gave a very exact description, occurred during each day; in the morning only he had some vomiting. The patient did not give up his occupation, and it was only on the Saturday following that he came to consult me at the solicitation of one of his friends. His tongue was cold, his nose was blue, the general circulation was good, the heat of the body was normal; the urine had not been suppressed, but it was not passed except with the stools. This young man, transferred at once to the Municipal Maison de Santé, died at the end of twenty-four hours.

In different establishments where the people can be subjected to strict surveillance, they have succeeded almost always in checking these symptoms, which are slowly progressive. The sick who have presented themselves as out-patients at the hospital, complaining of a serious diarrhoea which dates back two or three days and presenting as yet only local and incomplete cholera symptoms, received and treated immediately, have recovered, without exception.

The medical treatment varies according to the individual case. If the tongue is coated, if the patient has nausea or vomits, I believe we may have recourse to ipecac; at the same time, in hospital cases, the patients having almost always been under the influence of the diarrhoea at least for three or four days, and being very weak, I prefer rather a stimulating treatment, which restores at once the warmth, easily recalled at this period. Once warmed the patient may be treated deliberately, as if he were under the influence of a diarrhoea of less serious character. Opiates in small doses, absorbent powders, astringent injections, are ordinarily sufficient. Even at this period, I do not ordinarily suspend alimentation completely, and I believe that porridge is generally the best vehicle for opium. I give every three hours a tablespoonful of wine of cinchona containing two drops of laudanum, and immediately afterwards two teaspoonsfuls of thick tapioca. The injections are not given until the next day, or the day after even, if the diarrhoea does not abate with sufficient rapidity. Rest in bed is imperatively maintained. Little drink is given, and by preference bitter aromatic infusions.

The indications drawn from the state of the body are perhaps more significant than those furnished by the stools. I attach great importance to the presence or absence of gurgling under the pressure of the hand, and to the nature of the intestinal rattling thus produced. The evacuations are but the most evident symptom of a diarrhoea which may persist without discharges, or which may not continue after the last evacuation. Simple as this recommendation is, not to take the dejections as the only measure of the intestinal secretion, it is not useless, as the physician is too often inclined to accept them as the only measure of the diarrhoea.

Recovery takes place either suddenly or gradually: in the first case constipation succeeds immediately to a serous, whitish evacuation, identical with those which have preceded; in the second, the evacuations approach each time more and more in color and consistency to the normal condition. When the diarrhoea is thus arrested suddenly, it is well on the next day to prescribe a light purgative, under pain of allowing a general malaise to develop itself, characterized particularly by gastric pains and headache.

I do not wish here to discuss, not having the facts before me to determine it, the question of the greater or less frequency of the premonitory diarrhoea; it does not seem to me that the problem should be stated in the terms in which it is customary to present it.

Clinically there exist two forms of cholera—the one slow, progressive, proceeding by the successive evolution of symptoms, and allowing the physician time to observe and interfere; the other, identical in its progress, but so rapid, so vast, that days are represented by hours and almost by minutes. Both begin with the same diarrhoea, both may end in the same fatal event. The diarrhoea is the necessary antecedent, it governs without exception the other symptoms; only, in acute cases, the succession of events escapes our examination, and they seem to appear simultaneously. Whether in the diarrhoea which precedes for eight days the other phenomena of cholera, or that which precedes them for an hour, we find an uninterrupted series of steps.

The forms called overwhelming (*soudroyantes*), in which the first choleraic stool is the disease itself, are so common that no one has thought of denying their existence. In order to tranquillize the public mind its frequency is dissembled, and this deception has its excuse, but it would be unreasonable to give it the semblance of a scientific fact. In point of fact, as is always the case, some patients enjoying full health, sober, robust, young or old, having in no way transgressed the laws of a strict hygiene, are taken with a sudden diarrhoea which, from the first evacuations, has the specific aspect; the symptoms are crowded together tumultuously rather than succeed each other; in less than an hour the patient is under the stroke of confirmed cholera.

The grand attack, of which I need not recall the characters, too
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well known and never to be forgotten, has nothing to distinguish it from the cholera which I observed in 1847 in Russia, in 1849 and 1854 in Paris. It is only in studying simply the principal symptoms that one has a chance to observe any peculiarities in the present epidemic which may happen to exist.

The variable coldness, more or less slow in its appearance, is constant on the tongue, in the mouth, on the nose. The forehead and the cranium have almost always a decidedly elevated temperature. Warmth is quickly reestablished in the belly, sufficiently so in the lower extremities, much less so in the upper extremities. This chill is the most important indication of the general condition of the patient. From the moment that the tongue recovers its heat, we have a right, notwithstanding the persistence of all the other symptoms, to assume the commencement of a change. The coldness of the limbs is deceitful, for it is possible to employ and to keep up an artificial extra-vital heat; that of the tongue is decisive and never deceives. I except only a single case, which I may be excused for alluding to, where the patient has taken ice.

The cyanosis has seemed to me to have less intensity; it is often distributed very unequally, and does not affect by preference the extremities. In many patients it appears in the form of bluish patches, ecchymotic, not disappearing under the finger, occupying sometimes the thighs, sometimes the penis, never the belly nor the chest; so extensive in some places that one might believe it to be a traumatic extravasation of blood. The most brisk flagellation, which produces a violet-rose color in the parts least affected, causes no change in these ecchymoses. The face gives no measure of the general cyanosis, which does not correspond on the other hand to the intensity of the coldness.

The skin is sometimes dry, sometimes covered with cold sweat, which ordinarily appears only at intervals.

The muscles have no characteristic flaccidity, contracting slowly when they are pinched or struck by the hand. The cramps are confined almost entirely to the calves, rarely affecting the muscles of other parts of the body. They are generally of moderate severity, occurring only at long intervals, and above all do not occur after the first period of the disease. Patients in whom the pain is so severe as to force them to cry out, are the exception. The visible muscular contraction is not very great. I do not remember to have witnessed an epidemic in which the patients have relatively suffered so little from this painful complication. In many grave cases, terminating fatally, the patients have declared that they have been little or not at all inconvenienced by the cramps.

During the cold stage the arterial circulation is more or less impeded. The heart seems to pulsate deeply, the pulse in the radials cannot be felt, sometimes not even in the groin. At other times the pulse is regular, but always rather retarded than accelerated. The

respiration is equally variable—sighing, anxious or almost normal, without revealing by auscultation, either in this or any other stage, any anomaly in the respiratory murmur.

The gastro-intestinal affection is entirely in accordance with the standard description. The vomiting, however, is far from having the invariable uniformity of the alvine evacuations. Many of the cases vomit only at the commencement of the attack; others, less numerous, are tormented by repeated vomiting, but which, even in extreme cases, is not to be classed among the number of symptoms the most indomitable. I have not seen a single patient of whom it might be said that the persistence of vomiting had rendered therapeutic intervention fruitless.

The serous diarrhoea, limpid, mixed with flocculi, is identical in almost all cases. Sometimes, in place of the granules which have been compared to grains of rice, the patients pass semi-coagulated, albuminous masses. In three or four cases the serous diarrhoea has been bloody, like lees of wine, from the first; none of these patients recovered, or showed any sign of even temporary amelioration. As in the slow form of the disease, the alvine evacuations may cease suddenly, without having changed their character, and, after one discharge exclusively serous, constipation is abruptly established, or the diarrhoea is gradually modified and approaches more and more to the normal condition. The second mode is much the most favorable.

The diarrhoea, whether it is suspended or not, does not give an exact measure of the severity of the disease.

The urine is suppressed and cannot be secreted anew, until long after the return of warmth and the cessation of the specific diarrhoea.

[To be continued.]

CLINICAL LECTURES ON AMBLYOPIA AND AMAUROSIS, BY PROF.
A. VON GRAEFE.

[Continued from page 440.]

CASE VI.—*Blindness of each Eye of sudden occurrence, with incomplete Restoration of Vision on one side, probably caused by a Basilar Tumor.*

Friedrich R., a tailor, 32 years old, pale and bearing evidence of insufficient nourishment, comes to consult us for a recent loss of vision of the right eye and weakness of the left. The functional examination reveals the absence of quantitative perception of light on the right side, diminution of the acuteness of vision to $\frac{1}{2}$ on the left, and (by lamplight) indistinctness of eccentric vision in the outer and lower quadrant of the field. The pupil of the blind right eye is entirely insensible to the influx of light; contracts energetically, however, when the left eye is illuminated, a circumstance which

excludes any suspicion of simulation. The optic papilla of each side, as well as the size of the retinal vessels, is entirely normal. The history of the case reveals the fact that the patient during the last few years had had several severe attacks of vertigo, which had twice been so intense as to cause loss of consciousness, and once had induced a temporary weakness of the left arm. The mind remained unaffected, headache occurred only from time to time and very lightly, and the cranium was in no part sensitive. The eyes had been entirely unaffected up to within fourteen days; one morning, however, the patient, while at his work, observed a limitation of the right field of vision, objects far removed to one side seeming entirely to disappear. This obscuration advanced from the temporal side inwards with much regularity, so that on the third day objects at which the right eye was directed seemed situated at the edge of the defective portion. On the sixth day only a faint glimmer of light existed on the nasal side. The day afterwards all perception of light had disappeared. It is only a few days since a decrease in the acuteness of vision of the left eye has been observed, and with this is particularly connected a great sensitiveness to light, indicated by the, so to speak, dazzled manner of the patient.

The method of development of the blindness in the right eye has been emphatically unusual. It differs in its rapid course (in all, six days) from the amaurosis dependent on atrophy of the optic nerve; on the other hand, from anæsthesia of the retina (Case VII.)—to which otherwise the sensitive condition of the patient offers a strong provocation—in the steady advance of the failure in the field of vision, so appreciable to the patient. The measured advance of the contraction of the field of vision naturally gives rise to the supposition of a material agency at work on the trunk of the optic nerve, spreading gradually from the inner to the outer fibres, and inasmuch as a similar effect begins to be produced on the second eye, and no symptoms of a diffused cerebral affection or one existing on both sides are apparent, we must locate this agency at the base of the cranium. The previous attacks that the patient has had are in perfect harmony with the theory of a basilar neoplasm. If the development of such a formation be slow, there may be circumstances under which the adjacent nerves and the cerebrum itself may become adapted to it, allowing of its remaining entirely latent. Compression of the basilar vessels and the derangements of cerebral circulation dependent thereon—for example, faint-like or epileptiform attacks, with, perhaps, interruption of the arterial circulation and transient hemiplegia—occur then only periodically and under the additional influence of accidental causes, and the whole aspect of the disease may for a long time be confined to these symptoms. Paralysis of the cerebral nerves takes place when either the morbid growth, as such, cuts off the nerves, or when the nerve connective-tissue undergoes an irritative process, or when too great an amount

of pressure gives rise to compression of the nutrient vessels, and thereby to a loss of nerve-substance. One of these processes must have recently allied itself to the existing difficulty and have affected the optic nerves. The normal condition of all the other nerves, especially of the branches of the oculomotorius, warrants us in placing the morbid growth in front of the chiasma and between the optic-nerve trunks, from which focus its action would first be apparent on the crucial fibres (inner retinal portion). Considering, however, the deficient character of the symptoms, the theory of such a new growth may be set down as the more probable diagnosis. We meet with cases of defined basilar periostitis which, contrary to all expectation, induce no pain, and where the extremely gradual development of the symptoms simulates the progress of a tumor. Finally, there are forms of paralysis which seem to abundantly support the theory of a basilar tumor, but where there is an absolute failure of anatomical confirmation. More prolonged observation will, perhaps, invest such a supposition with increased certainty.

We must give a prognosis unfavorable, to be sure, but not as decided, as regards the vision, as we should in ordinary atrophy. The more the case differs in its aspect from those of frequent occurrence and subjected to the light of abundant experience, the more cautious must we be in our prognostic utterances. If the cause be really a tumor, the final result must be fatal, but a partial restoration of vision is by no means impossible, considering the short duration of the blindness. This would only be the fact in a case where the tumor has really cut off the optic nerve. If the loss of conductive power in the nerves is attributable to inflammatory action in the connective tissue or compression of the nutrient vessels, the processes may be partially transitory and give way to some amount of change. Thus in the case of tumors, in spite of their constant increase, we not infrequently observe an amelioration in certain classes of paralytic symptoms.* For the present it is natural to suppose that the limitation of the left field of vision will continue to progressively develop; the result must show, however, whether it will lead to entire loss of sight in this eye or only to temporal hemiopia.

The patient was again presented, eight days after his admission; the contraction of the left field of vision had meanwhile become more and more extended, following much the same course as did the right, and within a day the patient had been deprived of all perception of light in this second eye, too, becoming, consequently, stone-blind. Moreover, of late, a progressive failure of the sense of smell had taken place, not amounting, however, to complete loss of smell. An ophthalmoscopic examination gives a negative result with regard to the papilla. In the interval a slight attack of faintness had been noted.

* See the instructive case published by Samisch in the February number of this year's magazine, pp. 51-55.

The patient remained six days in this state of complete blindness, at the end of which time some perception of light began to manifest itself in the left eye, as well as a gradual restoration of the left field of vision, beginning on the nasal side. Six weeks after the case was first presented, the field of vision of this eye had attained a nearly normal development; the acuteness of vision, however, had only reached $\frac{1}{10}$, and eccentric vision in the neighborhood of the temporal edge remained indistinct. This improvement and simultaneous increase of the sense of smell followed the administration of the lactate of zinc in increasing doses; was probably, however, not connected with this agent, to which, in cases of idiopathic retinal hyperesthesia (see Case VII.) I am highly partial. The right eye remains entirely blind, and its papilla now offers clear evidence of atrophic degeneration.

The last recorded condition of things seems now (a month later) to remain unaltered. That the partial restoration of vision on the left side by no means detracts from our original diagnostic supposition of a basilar neoplasm, has already been settled. The patient, too, continues pale and exceedingly decrepid; the left papilla, in its turn, commences gradually to exhibit traces of atrophic degeneration, without, however, any reduction in the partially-recovered vision.

CASE VII.—Anæsthesia of the Retina, with Concentric Limitation of the Field of Vision; Quick Recovery.

Carl S., a delicate boy, 10 years of age, is brought to the clinique for deranged vision of the right eye and twitching of the face. The right eye is extremely intolerant of light, it being hardly in his power to hold it open when exposed to strong daylight; on softening the light, however, and neutralizing a hyperopia $\frac{3}{5}$, the acuteness of vision is found to be $\frac{1}{3}$; the field of vision is concentrically, though irregularly limited, rather more downwards than in any other direction. Its angle of aperture in the vertical direction is about 40° ; in the horizontal, 50° . By lamplight, even though limited in amount, no diminution in this diameter of the field of vision is noticed; in fact, it rather increases, and this, too, is the case when the patient is made to look by daylight through dark-blue glasses (shade No. 8). *In every direction phosphenes are producible.* It is particularly striking that pressure behind the upper part of the ora serrata at once brings out the lower phosphene, although the transmission of impressions is most deranged in this direction. The phosphene in question is projected at least thirty degrees below the edge of the contracted field of vision. The result of the ophthalmoscopic examination is entirely negative. The acuteness and field of vision of the left eye are normal. On the right half of the face periodic twitchings of separate muscles occur, particularly of the zygomatici and levatores; which increase, it is true, when the admission of bright light causes the right eye to be closed, but last even

when it is entirely shaded. The interval between their occurrence is seldom more than half a minute, the twitchings themselves being slight and lasting only a few seconds.

With the exception of some nervous irritability, the patient's health was always good. Three weeks before he presented himself he was, while walking in the country, caught in a thunder storm, and much frightened at a tree, a short distance from him, being struck by lightning. The next morning, the derangement of vision and the twitchings were both observed.

The presentation of these particulars was coupled with the following remarks:—We have here such a case of partial anaesthesia of the retina, especially of its peripheric zone, as often occurs in excitable children and nervous or hysterical women, and inspires even experienced ophthalmic surgeons with an erroneous fear of progressive amaurosis. The particular cause seems peculiar in such cases; it is, however, probable that we have here simply to regard the accompanying mental impression. Such forms of anaesthesia, coupled sometimes with a loss of cutaneous sensibility to pain, or, as in the present instance, with twitchings, may be seen to particularly occur in those cases where general excitability has acted as the predisposing mental agitation, as the immediate cause. They therefore particularly affect individuals of excitable temperament, the subjects of anaemia, those convalescing from severe diseases—for example, children getting over scarlet fever, measles and typhoid, whose power of resistance has not yet become developed. In comparing the characteristic signs in these cases with those in amaurotic affections, we shall find the former as follows:—

(1.) Only a slight diminution of the central acuteness of vision, seldom passing the bounds of $\frac{1}{4}$ or $\frac{1}{2}$, while there exists an important anomaly in the confines of the field of vision, generally consisting in concentric, irregular limitation.

(2.) A development either sudden or reaching its acme in a few hours or days.

(3.) Retention of the phosphenes at points corresponding to these portions of the retina where there is no perception of light, showing a loss of connection between the rods and fibres, dependent on a local cause.

(4.) Simultaneous hyperesthesia of the retina and the active character of the retinal difficulty thereon dependent, in consequence of which vision either remains as good or improves on using dark-blue glasses or in a dim light, circumstances which in general cause a diminution of vision.

(5.) The age and sex of the patient. It is well known that the amaurotic affections dependent on atrophy of the optic nerve—leaving out of the question congenital states as well as further intracranial derangements, manifesting their existence by palpable symptoms—very seldom occur with children and, in the case of adults, are

infinitely more frequent with men than women. In this form of retinal anaesthesia the opposite is the case. According to my observations it affects almost exclusively women and children, and in the exceptional cases where men were seized—a thing that has happened only twice in my experience—the subjects were those where temperament and bodily constitution approached either the feminine type or that of the child.

Finally the predisposing and accompanying circumstances are of importance, because under the first head we mostly meet with mental impressions, under the second with a loss of cutaneous sensibility and local affections of the motory system. In our own case a preliminary examination of the sensitiveness of the skin has given only a negative result. On the other hand the peculiar facial affection is completely characteristic.

As a whole these points of differential diagnosis are not without value, though taken separately the departures from them may be numerous. And first we have those exceptional cases in which (contrary to No. 1) the acuteness as well as field of vision suffers an unusual diminution. I can on this occasion refer to two in which blindness had nearly been produced. An unfavorable prognosis might have been given, still the other symptoms seemed to justify me in speaking encouragingly, and the usual treatment was followed by entire recovery. It is possible that certain cases of sudden and entire blindness might also be included in this category; it is not, however, in our power to establish rules of differential diagnosis between them and other incurable forms.

In the case of a boy 8 years of age a very remarkable phenomenon was observed. After a concentric limitation of the field of vision had lasted some time, and all other symptoms had decidedly indicated that the case belonged to the foregoing category, the hyperesthesia of the retina very much increased, and the next day there took place entire restoration of the periphery of the field of vision, accompanied, however, in each eye by a large central scotoma, diminishing the acuteness of vision from $\frac{1}{2}$ to $\frac{1}{6}$ (eccentric). This turn so surprised me that I at first refused credence to the statement, until over-persuaded by measuring the scotoma at various distances and by following up the case. The boy was convalescent from the measles, always delicate and possessed much nervous excitability; the usual treatment brought about his cure.

The amount, too, of the accompanying retinal hyperesthesia varies extremely, being often extremely marked in the case of hysterical patients, while children between 6 and 14 years of age, the most frequent subjects of the disease, may have only a moderate feeling of being dazzled. The affection of one side only makes the above-mentioned case exceptional; the disease almost always occurs on both sides, though it may be to a different extent. The fact that in cases of recent occurrence the optic papilla retains its normal appearance is of course of no value as regards the differential diagnosis, inasmuch as this is also applicable to cases of a serious nature that have existed but a short time (Case VI.). On the other hand it is remarkable that even where the difficulty has existed some time and not

been treated, the papilla may retain its normal redness, transparency and superficies.

It follows from what has been said that we hold the prognosis in these cases of retinal anaesthesia to be favorable. An entire cure is generally effected within a few weeks; occasionally the disease remains for some time at a certain height till the advent of convalescence, and only in a few cases have I observed the cure notwithstanding a long delay to be incomplete, owing to the but partial disappearance of the peripheric contraction of the field of vision and of the hyperesthesia — of the last, especially, where (as in cases of hysteria) the general health could not be established on a firm foundation. I have never observed these cases to result in amaurotic blindness.

As regards the question of treatment much stress is first of all to be laid on the regulation of the allowance of light. The good results that have been said to follow the entire and methodic deprivation of light in amaurotic affections may, I think, be attributed to the fact that the cases were either those in point or else of the nature of hemeralopia, a state in many respects analogous, different though it be with regard to the retinal torpor. In progressive atrophy the light, it is true, should be softened in order to remove a cause that may accelerate blindness; this is, however, never observed to produce a remarkably curative effect. It is my custom to first keep those affected with anaesthesia of the retina for several days in a completely darkened chamber, and then, during perhaps 6 or 8 days, to allow a gradual increase in the amount of light. Later, when the patients are allowed to go out, blue glasses of different shades, varying according to the degree of light they are exposed to, are to be given them. The importance of this portion of the treatment varies directly with the amount of retinal hyperesthesia.

Among medicinal agents I place my chief reliance on the internal administration of the preparations of zinc in increasing doses, following the method recommended by Jaksch in the treatment of a loss of cutaneous sensibility. I formerly frequently employed tartar emetic in nauseating doses, and generally obtained a satisfactory result; this plan, however, is far more disagreeable to the patient than the treatment by zinc, and where the digestion is affected cannot be used indiscriminately; I therefore counsel that it be had recourse to only when the use of zinc has failed to produce an impression. If improvement has once commenced, I go over to mild tonics, administer iron, give aromatic and salt baths and cold spongings. All this treatment must have reference to the state of the general health in the case before us. It is indubitable that a well-balanced mind exercises a decided influence. As the passions often furnish the exciting cause, so have I seen their indulgence followed by a relapse in many cases where a cure was already in progress. Setting the patient at ease as to the true nature of the affection,

often brings about the favorable crisis. During treatment the exercise of the accommodation must be entirely forbidden; on the other hand when the dark chamber can once be dispensed with, much time should be spent in the open air. In this form of disease I must caution against the abstraction of blood, as well as all remedies which reduce the system, excite the nerves or interrupt sleep. Their employment is not only followed by an immediate change for the worse, but the disease develops a more obstinate character.

The boy was subjected to such a course of treatment, the light being regulated and zinc administered (lactate of zinc, at first gr. iss., afterwards gr. v. a day). Twelve days after his admission the twitchings of the right half of the face had been reduced to a minimum, the acuteness of vision had increased to more than $\frac{3}{4}$. The limitation of the field of vision outwards, inwards, and upwards had disappeared, and was only perceptible downwards; the retinal hyperesthesia had diminished, but was not entirely obviated. The patient was now ordered iron and cold spongings, and, when next shown at the clinique, the ability to use the eyes freely and a *restitutio ad integrum* were demonstrated, the cure having taken in all four weeks.

[To be concluded.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 4, 1866.

THE SANITARY INSPECTION OF THE CITY.—It will be remembered that we published, not long since, some resolutions and orders adopted by the municipal government relating to a sanitary inspection of Boston, which served at least to quiet the fears of the people in view of the possible speedy approach of cholera, and were satisfactory so far as they were a recognition on the part of the city authorities of its bad sanitary condition and of the necessity of immediate action to correct it. To the general, or to the unreflecting medical reader they undoubtedly appeared to be all that the occasion called for—a sure promise of a healthy and clean city in future, and to the extent of human agency an insurance against pestilence. They were, in fact, quoted by medical journals in other cities as an example worthy of imitation at home. The measures adopted, however, could not stand the test of a closer and practical scrutiny, for their execution was entrusted to an entirely incompetent agent, namely, the police. With due respect for the efficiency and honesty of this body of men, what can they know about such an important, such a difficult subject as sanitary visitation: what, indeed, can the Board of Aldermen know of it, to entrust it to such an agency? "They shall report all cases where the drains, cesspools or privies are in a state injurious to health." Does any one for a moment suppose that a patrolman understands enough of the physical and mechanical principles upon which proper

ventilation and drainage are based to conduct such an inquiry? It is evident enough that an examination thus conducted, instead of being "thorough and systematic," would be of the most superficial and dangerous character. A few bad smells, a few dirty houses might be attended to, but that would be the only practical result of such well-meaning resolutions.

More than two months have passed since they were adopted, and what has been really accomplished by them? We fear that the sanitary condition of our streets and houses is as unsatisfactory now as then. We doubt if a single inspection has been made of a dwelling house in the better parts of the city. There may have been inquiries in some such localities at the door, possibly consultations with servants, about the sanitary condition of the underground arrangements, but no inspection of "*the whole city*." Even in those places where sights and smells were of a character to be fully appreciated by such a commission, the nuisances have not in many cases been removed, even after the attention of its higher officers has been repeatedly directed to them.

It is not strange, therefore, that with the Board of Aldermen a doubt should have subsequently arisen as to the wisdom of their action in this matter, and that they should have sought the advice of the Consulting Physicians. This was given in the following report, which will commend itself, we are sure, to all our readers. There can be no doubt of the necessity of a thoroughly scientific, sanitary inspection of the city. It should be placed under the direction of and made by physicians, the only competent persons for such work. A chart should be made by wards or districts, upon which the sanitary condition of every house, alley and street in the city, and the public and private systems of drainage and water-supply could be seen at a glance.

The conclusion of the report contains the views of the Board upon the question of quarantine and cholera, but as this has been recently published in the *JOURNAL*, it is omitted in this connection.

BOSTON, NOV. 11, 1865.

To the Mayor and Aldermen of the City of Boston:—

In reply to the following questions, submitted by His Honor the Mayor and the Board of Aldermen, to the Consulting Physicians, viz.:—

1. Is what has been done and is now doing by the City Government, towards purifying and cleansing the city, in their opinion, sufficient to prevent the invasion and extension of Asiatic Cholera, so far as it can be effected by these sanitary measures?

2. Is it advisable that one or more hospitals should be provided for the reception and treatment of cholera patients, and where located?

They respectfully

REPORT:

That, so far as they have been informed of the manner and extent of the investigation made by those appointed to examine into the sanitary condition of the city, it appears to them wholly inadequate to accomplish the end designed. It is understood, from the statement made by the Superintendent of the Board of Health, that only the northern part of the city, and a portion of the south, have been examined and reports made on their condition; and, also, that a report has been made concerning a well-known nuisance in Charles Street, reported as such by the City Physician in 1859, and occasionally, ever since, but still remaining in increased degree; thus leaving out a large extent of densely occupied land in the west and in the central parts of the city. Even if this examination had been faithfully and intelligently done, it is manifest that it can lead only to a par-

tial and limited purification. But from the information obtained by individuals of this Board, they cannot but fear that the sanitary survey, made into the condition of many foul places, has not been correctly reported. It was stated that the mode adopted by the city for the investigation has been as follows, viz.: that a police officer should make inquiry at each house, of the state of the drains, privies, &c., on the premises; and, on his report, that the Superintendent of the Board of Health should make a subsequent visit, and order the nuisance, if any such had been reported, to be removed; and a third visitor to the premises from the Board of Health should see that the nuisance had been abated. Now, it is plain, that if a policeman should call at any house and inquire, with all politeness, into the condition of the premises, as to the drains, &c., and should be informed that they were all in a satisfactory condition, there would be no subsequent visit by the health officer, and no actual examination of the premises would have been made. The Medical Board apprehend that in some instances this has been the case. Now, although there is such a vast difference in the sensible aspect and in the real condition between the large and cleanly houses of the affluent and the small and dirty dwellings of the poor, yet even in the best kept mansions of the wealthy there may be unseen or unnoticed causes at work, calculated to produce sickness, not observed till seen in their evil effects. Thus sometimes a family in very good circumstances is made most unexpectedly to suffer from the severe sickness of several of the household, and even by the death of one or more of its members, from the effect of local but unnoticed pestilential causes. Every house, therefore, should be visited, not only at the outer door, but examined with scrutiny within and throughout.

The Medical Board cannot but think that so important a subject as that of a sanitary investigation has not been committed to those best able to make it. Without the least disparagement to the police or to the gentlemen of the Board of Health, to whom this arduous duty has been assigned, in addition to their other engagements in city affairs, the Physicians are of the opinion that such an examination could only be effectually done by an independent committee, under the personal inspection of a medical board. If the city was divided into districts, with a visiting committee for each district, having a physician attached, it might be hoped that the work would be faithfully and fully accomplished. It also appears that many of the most prominent nuisances, such as that in Charles Street, and others at the South End, remain unremoved; and these and similar places cannot but be regarded as pestilential localities. The Board of Physicians, therefore, in reply to the first inquiry of the Board of Aldermen, say that there is much more to be done, and more strictly done, to improve the sanitary condition of the city, and prepare it for the inevitable visit of the cholera.

In answer to the second inquiry, as to the necessity and location of cholera hospitals, the Physicians reply: that, from the experience of all of the medical gentlemen, in former invasions of the cholera, they are of the opinion that several hospitals, located in different parts of the city, should be prepared, and will be found exceedingly useful, as at former periods. The disease, when fully formed, is too rapid in its course, and too severe, to admit of the removal of a patient out of the city, or to a distant part within it. Assistance, to be availing in this disease, must be close at hand, and promptly rendered. It is recommended that arrangements should be made at once for such establishments, although it is not thought that there is danger of its immediate appearance in this community. A suggestion having been made to the Medical Board, that it might be expedient that they should ascertain what were the legal powers of the City Government to accomplish what they might advise as sanitary measures, they acknowledge that it appears to them that the statutes do not invest the City Officers with all requisite power; but they also think that a full and vigilant exercise of such power as they have would enable them to accomplish much more than has been done, if not all that is desirable. This, however, must be left for legal decision.

* * * * *

The Consulting Physicians recommend that the orders lately passed by the Board of Aldermen be so amended that the sanitary survey be put under the direction of the City Physician, and that he have authority to call upon the Chief

of the Police, Superintendent of Internal Health, and the Superintendent of Sewers, for such assistance as he requires for the removal of nuisances.

JOHN JEFFRIES,
WINSLOW LEWIS,
HENRY G. CLARK,
D. HUMPHREYS STORER,
CHAS E. BUCKINGHAM,
Consulting Physicians.

DEATH OF DR. ELISHA HUNTINGTON.—The following account of the life and death of Dr. Huntington is taken from the *Lowell Courier* of December 18th :—

No individual was so well known in our community as Dr. Huntington. Few persons were ever called upon to occupy so many different positions before the public as himself. His life is closely interwoven with the whole history of Lowell, he having come here in 1824. He was born in Topsfield, Essex County, April 9th, 1796. His father, Rev. Asahel Huntington, was pastor of the church there about twenty-five years, dying in 1813. His mother was the daughter of Dr. Eliasha Lord, a distinguished physician in Pomfret, Ct., and was a woman of superior mind and moral worth. While the son received the name of the grandfather, he inherited largely the qualities of the mother. He entered Dartmouth College at the age of 15. He took his medical degree at Yale College in 1823, and commenced immediately the practice of medicine in Lowell. The first and last office he held was that of a member of the School Committee—having been elected in 1826, and re-elected in 1831, '32, '33, when Lowell was a town; and, then again re-elected in 1860 and 1862, terminating at the close of 1864.

In 1833 and '34, he was one of the Selectmen of Lowell, and after its incorporation as a city was a member of the Common Council, in 1837-8-9, serving two years as President of that body. In 1839 he was promoted from the Presidency of the Council to the Mayoralty, succeeding the Hon. Luther Lawrence, who died soon after entering upon the duties of the office. He was re-elected Mayor in 1840, '41, '44, '45, '52, '56 and '58, when he positively refused the use of his name again for that office. He was an Alderman in 1847, '53 and '54.

In 1853 Dr. Huntington was chosen Lieutenant-Governor of the State, having been elected upon the Whig ticket with Gov. Clifford; but he refused the use of his name as a candidate for re-election the following year. He has been a member for several years of the Board of Overseers of Harvard College; was an Inspector for three years of the State Almshouse at Tewksbury, and has been its Consulting Physician from the establishment of the Institution. He has been for some time Chairman of the Library as well as of the Lecture Committee of the Mechanics' Association, and but a few weeks since introduced to the audience George W. Curtis, Esq., which was his last attendance at these lectures. The hall in which these lectures are held, called "Huntington Hall," will transmit his name to successive generations.

Notwithstanding the occupancy of all these public positions, Dr. Huntington applied himself closely to the duties of his profession. It was in the capacity of a physician that he was most and best known to large numbers of our citizens. Starting with the early settlement

of the city, he has had here an extensive practice for over forty years. Many families never employed any other physician. At times he did considerable business in the adjoining towns. While he never made any pretensions to superior skill, or devoted special attention to any particular department of medicine, he has always sustained himself in professional business, to an unusual degree, both commanding the confidence of the community as well as the respect of his medical brethren. He filled the office of President of the District Medical Society for several years, and was also for one or two years President of the Massachusetts Medical Society. In 1856 he delivered and published an address upon the life, character and writings of his old friend, Dr. Elisha Bartlett. This work was a well written production, and was very favorably received by the public. This, with his addresses as mayor, which were always finished specimens of composition, constitute the only printed communications he ever made to the public. His uniform kindness to the poor and needy, not only while acting as mayor, but especially in his professional duties, will long be remembered.

When able he was always ready to answer the calls of the poor without much regard to remuneration. No person in this city has ever spent so much time, labor and pains in relieving the sick poor as Dr. Huntington. The thankful remembrance of the poor, as well as the reward on High for such services are more valuable than silver and gold. No individual will be so much missed among all classes in our community as Dr. Huntington. Where is the person who could practise medicine over forty years in the same place, and occupy at the same time so many prominent positions, without creating greater prejudices, or making enemies — if indeed he ever had any?

Nature endowed Dr. Huntington with an organization remarkably favorable for public life — a *temperament and brain well balanced*. This was the great secret of his success. This was the foundation of the leading qualities in his character.

His kindness of heart, his genial good nature, his modest deportment, his nice sense of propriety, his fine literary taste and fondness for books, combined with natural talents and mental attainments of a high order, constituted leading elements in his character. But in this community, where he was so well known, any detailed analysis or description of his character seems really unnecessary. His deeds are his best eulogy.

A special meeting of the Fellows of the Middlesex North District Medical Society was held on Friday, and largely attended by the city members and also from the neighboring towns, for the purpose of giving expression to their grief at the loss by death of their lamented associate, the late Dr. Huntington.

Dr. Jewett, Vice President, occupied the chair, who stated, in most appropriate words, the object of the meeting.

Dr. Green made a full and interesting report of his last illness.

Dr. Savory followed in appropriate and judicious terms, descriptive of the many worthy traits in Dr. H.'s character and life.

Dr. Edwards, of North Chelmsford, made, in a most feeling manner, allusions to his long and intimate relations to the deceased.

Upon motion of Dr. Savory, a committee was ordered to be ap-

pointed by the chair, to propose and draft resolutions to be presented to the Society at their next regular meeting. The chair appointed as this committee, Drs. Green and Savory of Lowell, and Dr. Bartlett of Chelmsford.

The Society then voted to attend the funeral in a body.

UNITED STATES ARMY SURGICAL REPORTS.—The Surgeon-General has just published Circular Number Six for the information of the medical officers of the army. The circular comprises reports from Brevet Lieutenant-Colonel George A. Otis, U. S. Volunteers, having charge of the surgical, and Brevet Major J. J. Woodward, U. S. Army, having charge of the medical history of the rebellion. From the surgical report it appears that complete registers of the wounded are in course of preparation, in which over eighty-seven thousand cases of wounds and seventeen thousand surgical operations have been recorded up to September, 1865, the work of registration being still very far from complete. The material collected is enormous, and embraces a mass of facts which on many subjects exceed in number and value all previous observations in this field.

In the late war the monthly reports from a little more than half the regiments in the field, give for the year ending June 30, 1862, an aggregate of 17,496 gun-shot wounds. The reports from rather more than three fourths of the regiments for the year ending June 30, 1863, give a total of 55,974 gun-shot wounds. The battle-field lists of wounded for the years 1864-65, include over 114,000 names.

The surgical specimens of the Army Medical Museum number 5480, and not only in specimens of recent injuries, but in illustration of reparative processes after injury, of morbid processes, of the results of operations and of surgical apparatus and appliances, this institution is richer, numerically at least, than the medico-military museums of France or Great Britain.

The medical staff that served in the late war was composed of a Surgeon-General, one Assistant Surgeon-General and Medical Inspector-General, 16 medical inspectors, 170 surgeons and assistant surgeons of the regular army, 362 volunteer staff surgeons and assistant surgeons, 3000 regimental surgeons and assistant surgeons of volunteers, 2500 acting assistant surgeons, or physicians serving under contract, and six medical storekeepers.

The second report, by Major Woodward, contains an outline of the material collected for the medical branch of the history. It embraces all the information possible with regard to the sickness and mortality of the army during the war, and especially whatever related to the nature and causes of those afflictions which were the chief occasion of death and disability. The mortality from disease alone was forty-eight and seven-tenths per one thousand of mean strength for the first year of the war, and sixty-five and two-tenths for the second. The total number of deaths from disease reported for the first year was 14,183, and 42,010 for the second. These figures do not include those who died while absent as prisoners of war or after having been discharged the service for disability. The number constantly sick was about ten per cent. of the strength. The total number of cases treated by the medical department, including wounds and injuries, was 878,918

during the first year, and 171,183 during the second. The most fatal disease was camp fever, of which there were 218,260 cases, and 19,459 deaths, during the two years. Next come diarrhoea and dysentery, 725,675 cases and 11,560 deaths. Then inflammation of the respiratory organs, 304,284 cases and 8090 deaths. Venereal diseases were much less frequent than the experience of other armies would have led us to expect, still eighty-four men in every thousand suffered during the first year, and sixty-five during the second—the total number of cases being over thirty-nine thousand. Twenty-eight thousand six hundred and twenty discharges for disability were reported during the first year, or about nine per cent. of the strength of the army.

It appears that at the medium there were 202 general hospitals, with 136,894 beds for patients. During the war over a million patients were treated in these, of whom but one in twelve died. Dr. Woodward says, never before in the history of the world has the mortality in military hospitals been so small, and never have such establishments so completely escaped from diseases generated within their walls. Complete reports for the first year of the war from troops in the field and in garrison, represent an average strength constantly present during the year of 281,117 men; in hospital constantly present, 9759 men; total, 299,936, among whom were 14,183 deaths from disease. The number of deaths recorded is much less than the real number, as it does not include prisoners of war and other absentees. For the second year in field and garrison, 598,821; in hospital, 45,687; total, 644,508; of whom there were 42,010 deaths from disease. These mortality rates from disease are much smaller than is usual with armies in a time of war, and are much less than those of the allied armies in the Crimea, or of our own army in the Mexican war. The proportion of deaths from disease for the third and fourth years was rather diminished.—*Despatch to Daily Advertiser.*

VITAL STATISTICS OF BOSTON.
FOR THE WEEK ENDING SATURDAY, DECEMBER 30th, 1865.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	28	37	65
Ave. mortality of corresponding weeks for ten years, 1853—1863	43.6	40.1	83.7
Average corrected to increased population	00	00	91.21
Death of persons above 90	—	1	1

COMMUNICATIONS RECEIVED.—Cases in Country Practice, No. IX.—Case of Fistula in Ano.

MARRIED.—In Ellington, Conn., Dec. 20th, H. L. Whitman, M.D., of Des Moines, Iowa, to Miss Ellen Thompson, of the former place.

DEATHS IN BOSTON for the week ending Saturday noon, December 30th, 65. Males, 28—Females, 37. Accident, 1—congestion of the brain, 2—disease of the brain, 1—bronchitis, 5—burns, 1—cancer, 1—consumption, 14—convulsions, 3—croup, 1—diarrhoea, 1—diphtheria, 2—dropsey, 1—dropsey of the brain, 1—dysentery, 1—gastritis, 1—disease of the heart, 2—infantile disease, 1— influenza, 1—insanity, 1—intemperance, 1—disease of the kidneys, 4—disease of the liver, 1—congestion of the lungs, 1— inflammation of the lungs, 1—malaria, 3—old age, 1—paralysis, 2—peritonitis, 2—pleurisy, 1— premature birth, 2—suicide, 1—unknown, 4.

Under 5 years of age, 24—between 5 and 20 years, 6—between 20 and 40 years, 13—between 40 and 60 years, 7—above 60 years, 15. Born in the United States, 44—Ireland, 16—other places, 5.